U.S. Intelligence chief tells

WHY RUSSIAN FREEDOM IS INEVITABLE

Growing educated class wants better life

By Allen W. Dulles

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SCIENTIFIC and technical education in the Soviet Union today presents a challenge to the free world. But mass education in the Soviet Union may well become a threat to their own Communist system of government.

The Soviets have two educational goals: first, to condition the Soviet people to be proper believers in Marxism-Leninism and to do the bidding of their rulers; second, to turn out the necessary trained technicians to build the military and industrial might of the USSR.

In the field of science, the Soviets have made rapid progress and their accomplishments here should not be minimized—least of all by those of us who are directly concerned with our national security. Twenty-five years ago, Soviet scientific education was riddled with naive experiments, persecution of scholars and unrealistic programs. Only a small core of older men kept alive an element of real quality on which to build. Reforms in the mid-1930s raised standards considerably, but, even so, they were behind our standards when the war came.

Today, that is no longer so. The Soviet education system—in the sciences and engineering—now bears close comparison with ours, both in quality of training and in numbers of persons trained to a high level. At the university graduate level, we find that the entrance examinations for scientific work, at the top institutions, are about as tough as those required by our own institutions. Also, we have the evidence obtained from defectors, some of them recent, who were university graduates. Although these men have come over to us because of their detestation of the Soviet system, many of them still pay tribute to the technical quality of their education and appear to look back at least on this part of their lives with some pride.

As regards Soviet scientific manpower as a whole, the quality differs greatly from field to field. But, generally speaking, their top men appear to be the equal of the top men in the West, though they have fewer of them, level for level. True, their biology has been warped by Soviet ideology, most conspicuously by heresies in the field of genetics, such as the doctrine that acquired characteristics are inherited. Also, their agricultural sciences have been backward, plagued like all of Soviet agriculture by the follies of the collective system. (What farmer will go out into the middle of a cold Russian night to see what ails a State-owned cow?)

In the physical sciences, there is little evidence of such political interference. Soviet mathematics and meteorology, for example, appear to be clearly on a par with those of the West, and even ahead in some respects. Military needs dominate their research programs. We who are in intelligence work have learned by now that it is rarely safe to assume that the Soviets do not have the basic skill, both theoretical and technical, to do in these fields what we can do. In fact, at times we have been surprised at their progress, above all in the aviation, electronic and nuclear fields. Certainly, the Russian's mind,

as a mechanism of reason, is in no way inferior to that of any other human being.

It is true that, since the war, the Soviets have been helped by German scientists taken to the USSR and by what they learned from espionage and from the material obtained during and after the war. Also, recently the Soviets have developed, and boasted of, a systematic service for translating and abstracting major Western scientific publications. But the Soviets have rarely been slavish copyists, at least where a Western invention or technique was of military importance. They have employed adaptation rather than adoption, as in the case of their improvement of the Nene jet engine. In certain key fields, they have clearly shown a capacity for independent progress.

While total Soviet scientific manpower at the university graduate level is about the same as ours—somewhere over a million each—about half of the Soviet total were trained by the inferior prewar standards. In number of research workers—a good index of average quality—we estimate that the U.S. has a 2-1 margin over the USSR in the physical sciences. We must remember, too, that the U.S. has a substantial number of competent engineers who have not taken university degrees but who have learned their trade through experience. The USSR has no real counterpart for this group, just as it has no substantial counterpart for the vast American reservoir of persons with high-grade mechanical skills.

But, lest we become complacent, it is well to note that the Soviets are now turning out more university graduates in the sciences and engineering than we are—about 120,000 to 70,000 in 1955. In round numbers, the Soviets will graduate about 1,200,000 in the sciences in the ten years from 1950 to 1960, while the comparable U.S. figure will be about 900,000. Unless we quickly take new measures to increase our own facilities for scientific education, Soviet scientific manpower in key areas may well outnumber ours in the next decade.

These comparisons in the scientific field most emphatically do not mean that Soviet higher education as a whole is as yet comparable to that of the U.S. Over 50 per cent of Soviet graduates are in the sciences, against less than 20 per cent in the U.S. Science in the USSR has had an over-riding priority.

Another important feature of Soviet education is the growth of secondary education at the senior high school level. By 1960 the Soviets will have four to five times as many secondary graduates per year as they had in 1950. These will be divided fairly evenly between men and women. Whereas, a decade ago, only about 20 per cent of Soviet seventh grade students went any further, by 1960 probably over 70 per cent will do so. Their secondary school standards are high and largely explain their ability to train competent scientists and engineers. Whether they can maintain these standards in the face of a very rapid expansion is a question.

So much for the advance in material terms. Let us turn now to the "thought control" aspect.

The Soviets give top priority to preserving the Marxist-Leninist purity of their students. Beginning with kindergarten rhymes on the glories of Lenin they pass to the history of the Communist party, a comparison of the "benevolent" Soviet Constitution with the "corrupt" constitutions of the West that do not confer liberty. Soviet economics teaches why the workers in capitalist countries can never own cars, but must always live in poverty. In the lower grades, civic virtue is taught by citing the example of a Soviet boy, Pavlik Morozov, who betrayed his family to the secret police and now has statues raised in his honor.

Even though it is hard to distort the physical sciences, they can be used to prove the virtues of atheism. In ancient history, it is the Athenians who are corrupt and the Spartans virtuous. In literature courses, selected works of Dickens are read as presenting an authentic picture of the present-day life of the British working man, while Howard Fast, *Uncle Tom's Cabin* and *The Grapes of Wrath* portray the contemporary U.S. Everything is taught so that the student shall acquire his knowledge in Communist terms and within a Communist framework.

But the Soviets are not content to rely upon the lasting effects of student indoctrination. They have devised in addition a rigid system for continuing their control. To repay the Government for his or her so-called "free" education, Soviet law requires that each student upon graduation must work for three consecutive years as the State directs. They may express a preference, but in practice only a small percentage of the students—those with high Government connections or with exceptionally high marks—have their requests granted. The rest must go where they are assigned—their niche in life largely predetermined.

Even at the end of the three-year compulsory assignment, the individual still is under the control of the Communist party, the Young Communist League, the local union, or the factory directors. To object to further assignments is to court an efficiency report so bad that a job will be hard to find. And, if a man were to refuse an assignment, he would lose his occupation and be forced to work at the most unskilled and menial tasks wherever he could find them. Thus, the typical Soviet university graduate gains little freedom from his status as an educated man. If he is a scientist or engineer, he will probably be able to avoid the military draft entirely. He may aspire to prestige and to much higher pay than his less educated fellows. But he pays for this by being possibly even more tightly directed than the bulk of Soviet workers.

Such, then, is the system, stressing high technical educational standards, on the one hand, while insisting on Communist philosophy and discipline on the other. Its ultimate human result, the Soviet graduate, must be—in

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the phrase given me by one of the best-educated of our recent defectors—"*a man divided.*"

In time, with the growth of education—with more knowledge, more training of the mind, given to more people—this Soviet "man divided" must inevitably come to have more and more doubt about the Communist system as a whole.

In the past, we have sometimes had exaggerated expectations of dissensions within the Soviet and in other totalitarian systems. Our hopes have not perhaps been so much misguided as they have been premature. If we take a longer look, we can foresee the possibility of great changes in the Soviet system. Here the educational advances will play a major part.

There is already evidence of this. As I have said, the physical sciences are being freed of party-line restraints. Within the educational structure itself, the pressure to turn out good scientists and good engineers has caused a de-emphasis of the time spent on ideological subjects. The student engineer, while he still has to pass his courses in Marxism-Leninism, can increasingly afford to do a purely formal job on the ideological front if he is a good engineer.

In the last year, there have been interesting signs of this freedom spreading to other areas, notably to the biological and agricultural sciences. Lysenko is no longer gospel—I suspect for the very simple reason that his theories proved fallacious when used as the basis for new agricultural programs. The development of corn and of better wheat strains proved remarkably resistant to the teachings of Marx and Lenin—and, in the end, nature won the day. After all, Karl Marx was not much of a farmer. Now Moscow is looking toward Iowa.

So far, this is only a small straw in the wind. But it is a significant one. If freedom to seek truth can spread from the physical to the biological sciences, we can begin to look for signs of independence even in the hallowed sanctum of economics. Certainly, every year that the "decadent" capitalist system continues to avoid depression and to turn out more and more goods, even the most hardened Soviet economist must wonder about the accuracy of the Communist version of truth in this field.

In cultural pursuits, the evidence is not all one-sided. Literature and even music are still subject to denunciation and criticism for not expressing the proper ideals. But clearly, here too, there has been some relaxation in the past two years. Recently, writers once denounced as "bourgeois" and "cosmopolitan" are being permitted to work again.

It is understandable that lasting freedom will come more slowly in economics and the humanities than where scientific matters—more open to proof—are involved. Ideology gives way most rapidly where it collides with fact.

This at times has caused the Soviet acute embarrassment. We are all familiar with the deceptions the Soviets practice on their people, particularly in the rewriting of history and the adjustment of doctrine to fit their wants. Malenkov is on the downgrade, so the Soviet press removes his name from the key wartime committees on which he actually served, and replaces him with Khrushchev. Beria falls; his name must be blacked out wherever it occurs even in a university catalogue and he must posthumously bear the blame for what Stalin and Molotov did to Yugoslavia in 1948.

This often has its laughable side. In the Beria case, the 1950 edition of the Great Soviet Encyclopedia was issued with a full four pages describing him as "one of the outstanding leaders" of the USSR and the "faithful disciple of Stalin." After his liquidation a few years later, subscribers to the Encyclopedia received a letter from the publishers suggesting that four designated pages—no

mention made of Beria—be removed with scissors or razor blade, and replaced by a large added section to the article on the Bering Sea and a new article on a gentleman named Friedrich Wilhelm Bergholz, an obscure Junker at the Court of Tsar Peter I, whose alphabetical resemblance to Beria was his one and only claim to fame.

Perhaps most of the scissor-wielders managed too keep a straight face. Yet this kind of thing, insignificant individually, typifies the kind of dilemma the Soviets must face increasingly and almost daily. We know that some thoughtful Soviet citizens are beginning to see through these distortions, and indeed through the whole process of thought-control. Yet that process may continue to have its effect on the masses of the Russian people. Will this equally be so when the average educational level of those masses is at the tenth grade rather than the seventh or lower?

Increased education must inevitably bring in its train increased expectations on the part of the educated. Since higher education in Russia had historically been only for the few, not only in Tsarist times but until very recently in the Soviet era, there remains a strong tradition that a boy who graduates from secondary school will not work with his hands. Over the past two years, the Soviet press has repeatedly printed criticisms of students who refused to take factory jobs on the ground that they were beneath them. In all probability, the system is nearly at saturation point in the rate at which it can offer professional or white-collar jobs to secondary-school graduates.

Ultimately, however much the Soviets condition a man's mind, however narrowly they permit it to develop, and however much they seek to direct him after he is trained, they cannot in the end prevent him from exercising that critical sense that they, themselves, have caused to be created in him when they gave him an education. When Wendell Willkie visited the Soviet Union in 1942, he had a look at their school system. In a conversation at the Kremlin he remarked: "If you continue to educate the Russian people, Mr. Stalin, the first thing you know you'll educate yourself out of a job." This seemed to amuse the Soviet dictator mightily. Maybe it will prove to be anything but a joke for the Soviet rulers of the future.

For the Soviets face a real dilemma between the two goals of their education system: on the one hand, making well-conditioned members of a Communist state, and, on the other, turning out trained people capable of taking their places in a technically advanced society. In some degree, this dilemma has been present since the Soviets took the crucial decisions in the 1930s to go all-out for trained technical manpower. It must become more acute in the future.

The rise in numbers of trained people is only beginning to reach its peak, at a time when the picture for all Soviet citizens is one of somewhat greater hope and expectation, and when change is in the wind in many ways. The broadening of the educational base within, the contacts with the outside world, the uncertainty in the high Governmental command and the absence of a dictator—all force the Soviet Union towards compromises.

With these compromises, comes the inevitable admission that the Soviet Marxist-Leninist system is not the only permissible way of life. If coexistence should really become the Moscow line, then Western free systems must be permissible; and if permissible anywhere, why not permissible in the Soviet Union itself? If the Tito form of heresy, denounced a few years ago more ferociously even than capitalism, is now to be forgiven and approved, how can the Soviets deny the European satellites the right to a similar heresy if they so desire?

Can the Soviets give their people a better material education and still keep them from wanting more and from thinking more on lines such as these? I do not think we can easily give the answer in point of time, but one can say with assurance that, in the long run, man's desire for freedom must break any bonds that can be placed around him.

Possibly for a time the Soviets will go forward, using their educational system as a sorting device for human assets. Half-educated men—all fact and no humanity—may still be good fodder for totalitarianism. Possibly the Soviet leaders will encounter problems for which they will seek the solutions by foreign adventures. But there remains the possibility that newly created wants and expectations, stimulated by education and perhaps by more exposure to the West, will in time compel great and almost unpredictable changes in the Soviet system itself.

Once or twice before this present peace and coexistence offensive, the Soviet seemed to start towards adjustment of its system to the facts of life in the outside world; first in the latter years of the war, and possibly again in 1946. These starts were quickly followed by a dropping of the Iron Curtain, by repressions, purges and a return to the rigid Stalinist line. Then the Soviet had a dictator, and it's hard to dictate without one. Today they have a committee in which the Soviet people themselves are not clearly told who is boss. Also today, the Soviets have gone much further than before towards introducing into their system the leaven of education, which makes a return to the Dark Ages far more difficult than in the past.

I would not be bold enough to predict that the Soviet might not attempt to return to the rigidity of a Stalinist regime. I do predict that this would be no easy task. In introducing mass education, the troubled Soviet leaders have loosed forces dangerous to themselves. It will be very difficult for them henceforth to close off their own people from access to the realities of the outside world.

A hard choice faces the perplexed, and probably unharmonious, group of men in the Kremlin. They lead a people who surely will come to realize the inevitability of the great precept: "And Ye shall know the truth and the truth shall make you free."